

REMARKS

Claims 11 to 19 have been canceled without prejudice and solely for the purpose of expediting the prosecution of the instant application. The rejections of claims 11-19 are thus moot.

Claim Rejections – 35 USC § 103

Claims 20 and 22-25 stand rejected allegedly as being obvious over Myer et al. ("the Myer reference") in view of Stevenson et al. ("the Stevenson reference"). In rejecting the claims, the Office Action equates a Suzler loom with a device including a strip arranging unit (50) recited in claim 20, among others. The Suzler loom, however, cannot be equated with the device including a strip arranging unit (50) recited in claim 20.

U.S. Patent No. 4,074,725 issued to Suzler Brothers, Ltd. discloses a loom. As described on col. 2, lines 16-28 of the '725 patent, as reproduced below, according to the Suzler loom, after a warp yarn (8) passes through eyes (16) of heddles (15), the heddles (15) are moved up and down to form a shed through which a weft yarn may pass, and then a weft yarn passes through the shed to perform weaving.

Referring to FIGS. 1 and 2, the weaving machine 1 is of the gripper shuttle type which has shafts 2 for forming a shed of warp yarns 8 disposed in a weaving plane, a picking mechanism 3 for shooting the shuttles, a catcher 4, a breast plate 5, weft supply bobbins 51 and a cloth beam 52. In operation, the warp yarns 8 move in the direction indicated by an arrow 53 through eyes 16 (FIG. 3) of heddles 15 of the shafts 2 to form a back shed 9. The warp yarns 8 then form a front shed 10 and pass through a reed 12 driven by a sley 13 to a beating-up station 11. The cloth 54 which is formed then passes by way of a breast beam 55, cloth roller 56 and pressing roller 57 to a cloth beam 52.

On the contrary, according to the instant invention, a longitudinal fiber reinforced polymer strip is pressed using a first bending member (80) provided at the upper plate (51) of the strip arranging unit (50) of the device and a second bending member (90) provided at the lower plate (52) of the strip arranging unit (50) to form valleys and ridges, thereby forming sheds. Thereafter, lateral fiber reinforced polymer strips are inserted to pass corresponding ridges and valleys of each of the longitudinal fiber polymer strips. Accordingly, as the Suzler loom is entirely different from the device including the strip arranging unit (50) in terms of the manner of forming sheds, the Suzler loom cannot apply to the claimed method.

Moreover, according to the instant invention, a plurality of ridges and valleys may be formed in a plurality of longitudinal fiber reinforced polymer strips through a single pressing process, thereby enabling a plurality of lateral fiber reinforced polymer strips to be inserted at the same time. By contrast, in case of the Suzler loom, when a shed is formed once, only one weft yarn may be inserted.

Accordingly, the rejections should be withdrawn.

Claim 21 stand rejected as allegedly being obvious over the Myer reference and the Stevenson reference in view of Hendrix et al ("the Hendrix reference"). In rejecting the claim, the Office Action states that although the Myer reference does not disclose a structure corresponding to the support grooves formed on the bending members of the instant application, the Hendrix reference discloses a structure corresponding to such support grooves (81, 91). Applicant disagrees.

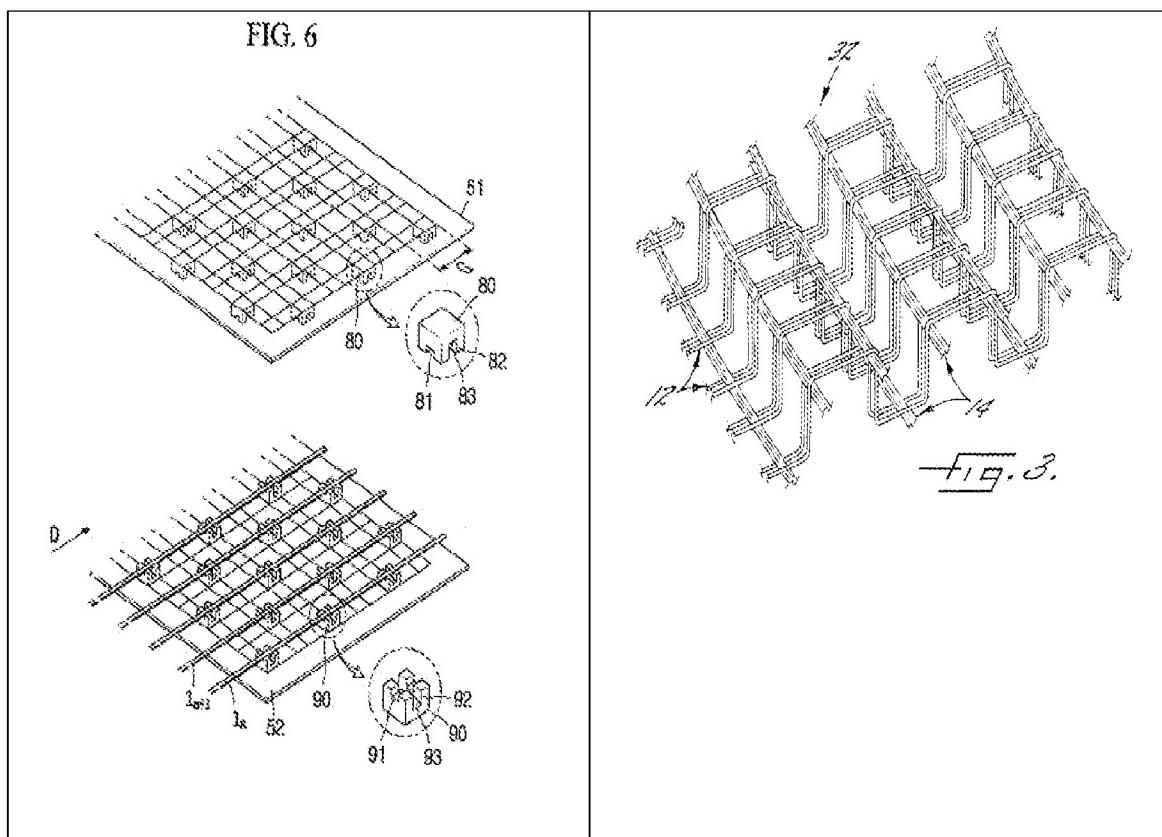
In the present invention, as described on page 16, lines 3-9; page 17, lines 2-3; Fig. 6 reproduced below, the strip arranging unit (50) includes upper and lower plates (51, 52), the bending members (80, 90) are provided on the surfaces of the plates (51, 52), and the support grooves (81, 91) are formed on the bending members (80, 90).

Amendment dated January 11, 2010

Reply to Office Action of November 9, 2009

By contrast, in the Hendrix reference, as shown in Fig. 3 reproduced below, a set of warp strands (12) is corrugated into alternating ridges and grooves, while a set of weft strands 14 remains substantially linear. That is, the grooves of the Hendrix reference are formed by the wrap strands themselves and they are different from the support grooves (81, 91) formed on the bending members (80, 90) distinct from a strand.

Accordingly, the rejections should be withdrawn.



In addition, the Office Action rejected claim 22 alleging that the through holes (82, 92) formed in the first and second bending members (80, 90) respectively are equated with the holes formed in the warp and/or weft disclosed in the Myer reference or the Stevenson reference. For the same reasons as set forth regarding claim 21, the rejections should be withdrawn.

In view of the foregoing, Applicant believes the pending application is in condition for allowance.

Dated: January 11, 2010

Respectfully submitted,

Electronic signature: /Kongsik Kim/
Kongsik Kim
Registration No.: 63,867
EDWARDS ANGELL PALMER & DODGE
LLP
P.O. Box 55874
Boston, Massachusetts 02205
(617) 239-0839
Attorneys/Agents For Applicant